

Installation Manual

Internal II
Eco Air Cooler



VIESA

IMPORTANT

Installation requires an experienced mechanic with specific knowledge in the installation of the VIESA Ecological Cooler. Installation, disassembly, repairs and maintenance must be performed by an Authorized Installer. Authorized Installer must use proper protective equipment when installing the system.

Improper installation or use of unauthorized parts can cause malfunctions, loss of battery life or other consequences which may result in serious injury.

Manufacturer or Distributor will not be responsible for injuries or damages resulting from misuse of equipment, use contrary to operating instructions or installation by any person other than an Authorized Installer.

Information contained in this manual is subject to change. Manufacturer reserves the right, without notice, to make changes in equipment design or components as progress in engineering, manufacturing or technology may warrant.

World-wide Patents

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Installation Manual

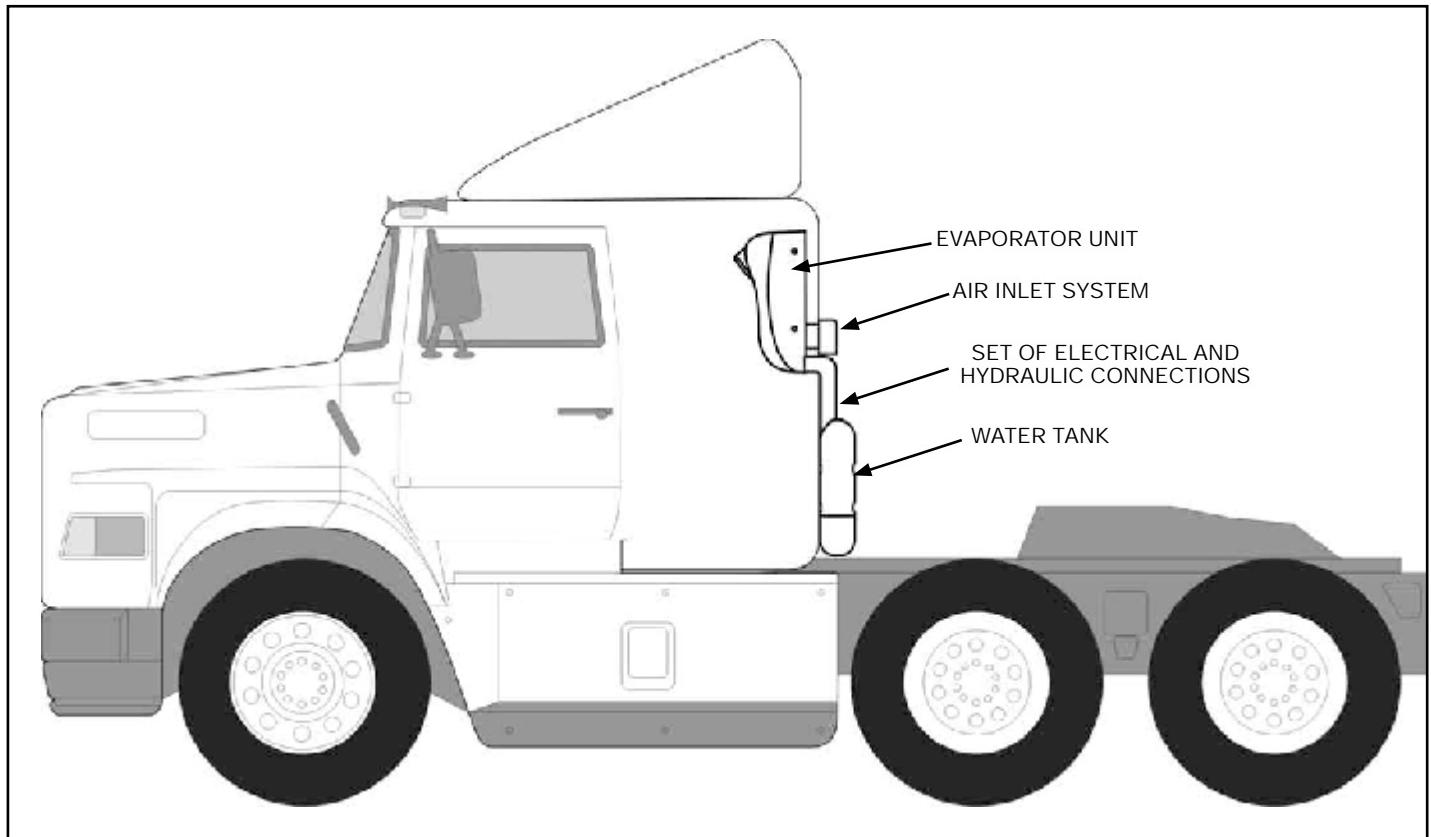
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1- ECO AIR COOLER

1.1- LOCATION OF PARTS AND COMPONENTS



1.2- TECHNICAL CHARACTERISTICS

- Evaporator automatic drying system.
- Evaporator replacement indicator.
- Voltage sensing in battery terminals.
- Full remote control.
- Digital LCD board with control to all functions and indication through symbols.
- Automatic turbo speed regulation according to the external temperature.
- Clock and Alarm clock.
- Auto switch on.
- Auto switch off.
- Equipment designed and manufactured according to EMC norms of electromagnetic compatibility.
- Swinging air guide.
- Turbo fan with sealed motor mounted on bearings.
- 8-speed turbo fan.
- Air inlet system with automatic opening and locking.
- 32-litre water tank with pump cover.
- Water tank installation without damage to the truck's cabin.
- Water level sensor.



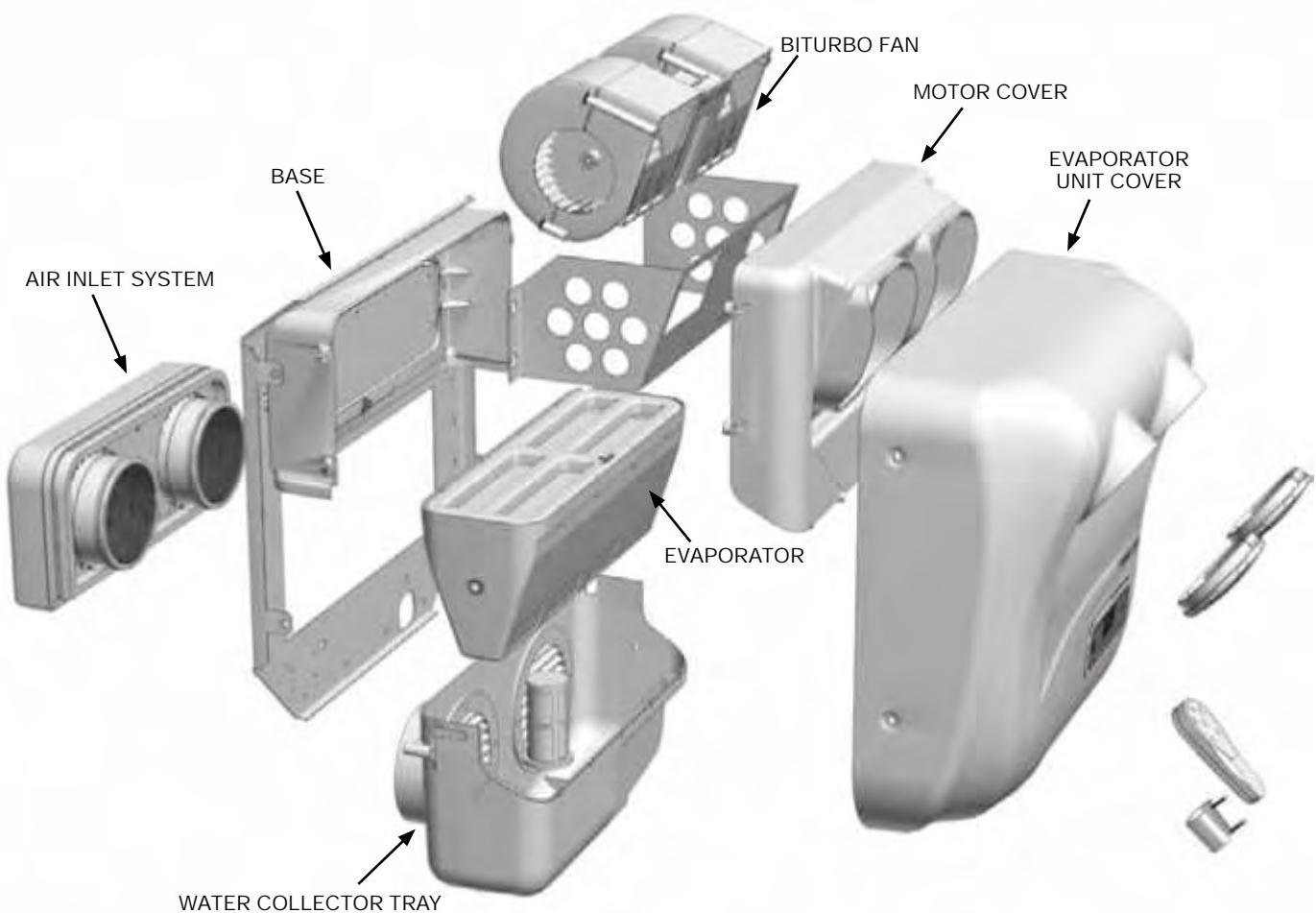
Water pump designed exclusively for Eco Air Cooler.
Disconnection of the pump due to low water level.
Short circuit protection system in pump and its connections.
Automatic system disconnection due to low battery voltage.
Protection system for high voltage.
Protection fuse in the general feed cable.
Protection for polarity reversal.
8 Amps. per hour average consumption with fan at maximum speed.
Average consumption of water: 1 to 5 litre per hour depending on ambient humidity.
4 Amps. per cycle average consumption of the water pump.
7.5 Amps. per hour average consumption of the fan.

2- MAIN COMPONENTS OF THE EQUIPMENT

Viesa coolers consist of two main interconnected components: the evaporator unit and the water tank with pump.

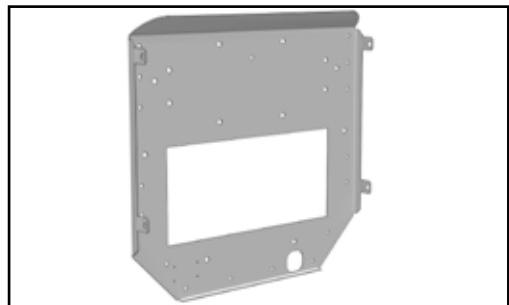
2.1- EVAPORATOR UNIT

This is the element in which the evaporation of water is produced and therefore, cooling of the air.



2.1.1- BASE OF THE EVAPORATOR UNIT

This part is used as a support for every component of the unit.



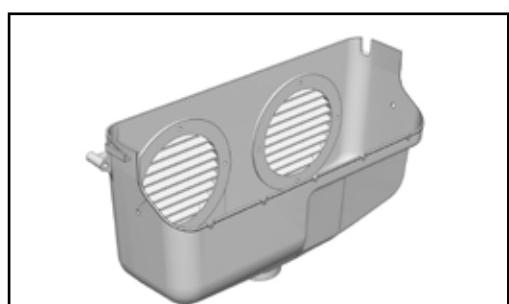
2.1.2- EVAPORATOR

It is a plastic structure which contains wood shavings with special characteristics, properly distributed in order to facilitate the evaporation and distribution of water by an irrigation system installed on the top of the evaporator which moistens the wood shavings.



2.1.3- WATER SYSTEM

Its function is to hold the evaporator and to collect the exceeding water coming from the evaporator.



2.1.4- COVER OF THE EVAPORATOR UNIT

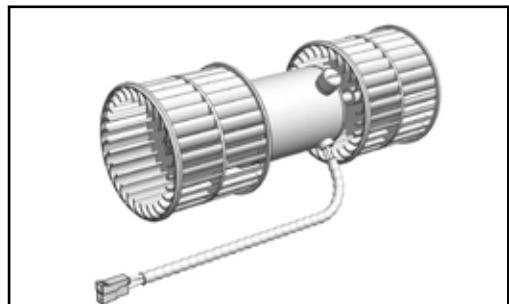
This component covers the complete evaporating unit protecting the internal components and is also used to install the air guides and the command and control modules.



2.1.5- BITURBO FAN

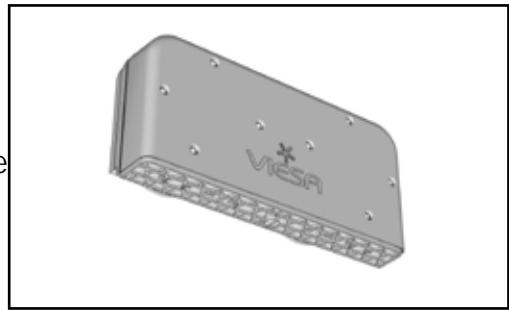
It has 2 fans which suck the external air delivering it to the interior of the driver's cabin.

Its maximum consumption is 7,5 Amps.



2.1.6- AUTOMATIC AIR INLET SYSTEM

This device allows the entrance of air from the exterior to be delivered to the evaporator. It has an electric motor that automatically opens a lid when the equipment is turned on, in this way dirt will not go into the unit when not in use.



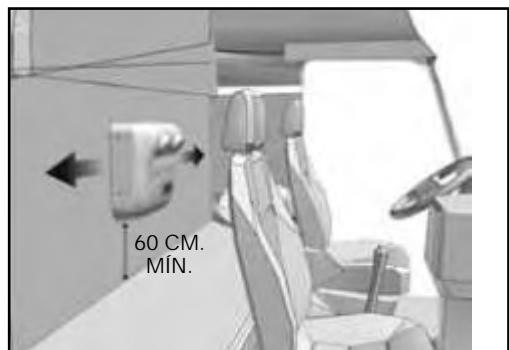
2.1.7- INSTALLATION PROCESS

⚠Very Important: *The fuse must be installed at the end.*

1- Select a proper place inside the cabin to install the evaporator unit.

- When making the holes for the air inlet system (using the template), check that you do not damage any cabin reinforcement and make sure the unit is not installed on an uneven surface.
Align the marks from the template to cabin reinforcement channels (minimum 2 marks).

- The evaporator unit should be installed in the middle or at one end, but the minimum distance between the unit and the bed must be 60 cm.

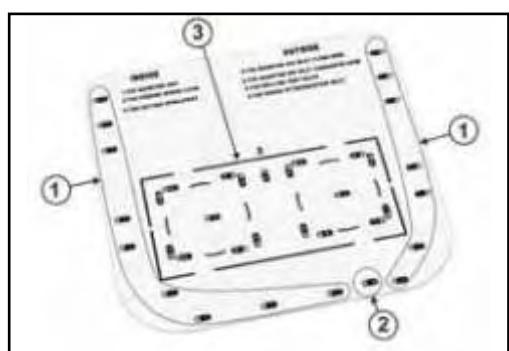


2- Using the template mark on the points indicated in the picture

Points 1: Select at least 4 fixing points so as to obtain a steady support base.

Points 2: For the electrical and hydraulic installation.

Points 3: To cut the original upholstery.

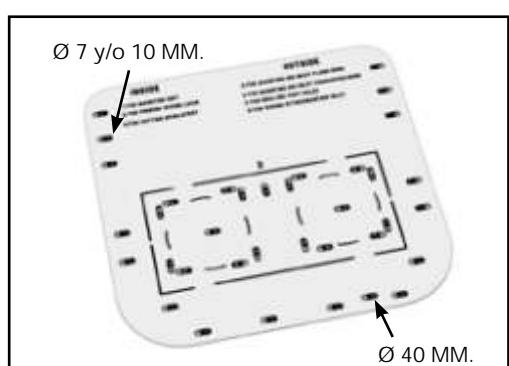


3- Remove the marking template and proceed as follows:

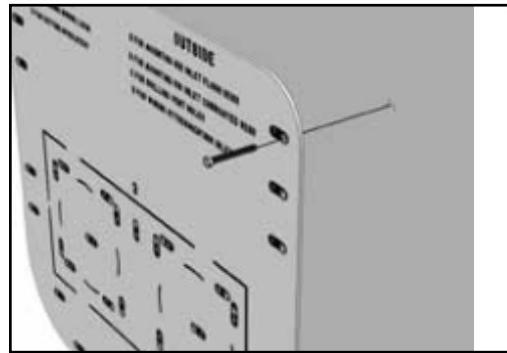
Points 1: Use a Ø 7 mm bit to perforate if bolts and nuts will be used, or a Ø 10 mm bit if rivets will be used.

Points 2: Perforate with a Ø 40 mm hole saw.

Points 3: Cut and remove the original upholstery so that a clear rectangle can be seen.



4- Place the template outside the cabin so it coincides with the holes made in step 1 and fasten it with two MA 6 bolts of 110 mm. long.



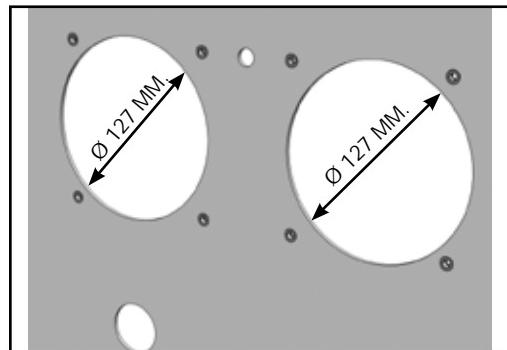
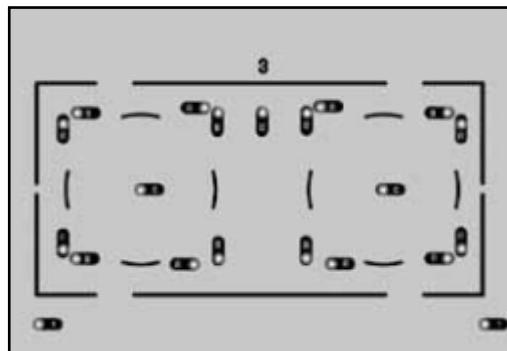
5- Proceed as follows:

Points A: Mark and perforate using a \varnothing 10 mm bit and insert rivets.

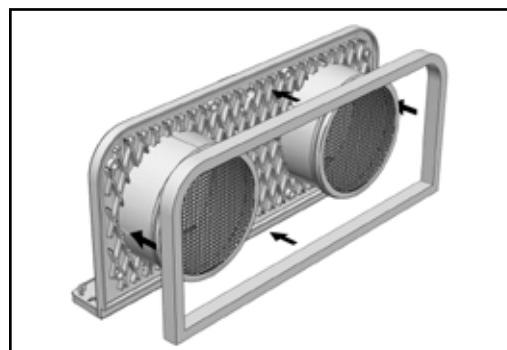
Point c: Mark and perforate with a \varnothing 127 mm hole saw.

Point d: Mark and perforate using a \varnothing 13 mm. bit.

Note: *Points B: Only used for cabins without reinforcement channels rear.*

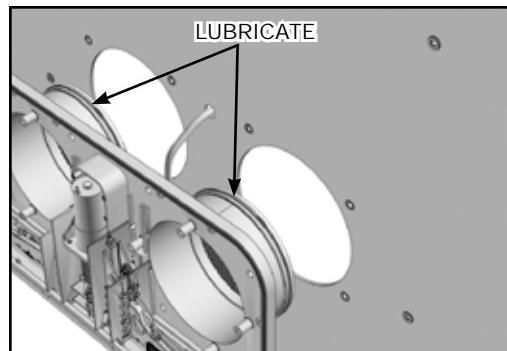


6- Stick the 8 x 8 mm. weather strip to the base of the air inlet system.

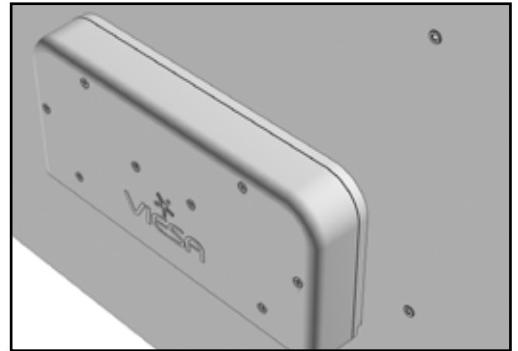


7- Pass the air inlet cable through the \varnothing 13 mm hole from the outside to the inside and tighten it with the 8 MA 6 bolts.

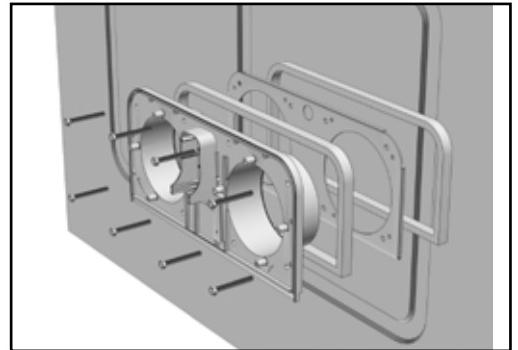
Note: *Lubricate the rubber edge of the filter for the air inlet system. Use soapy water or WD40.*



8- Put the lid of the air inlet system.

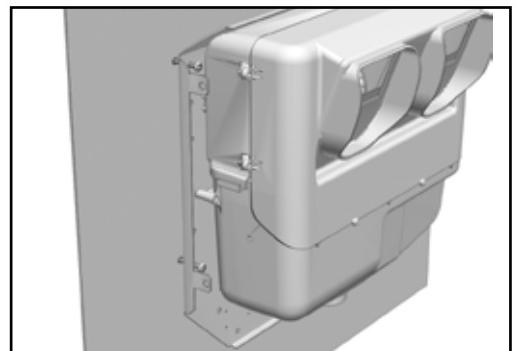


- a) Stick the weather strip of 15 x 15 mm. to the support for air inlet..
- b) Affix the base of the air inlet and the support for air inlet with the bolts provided.

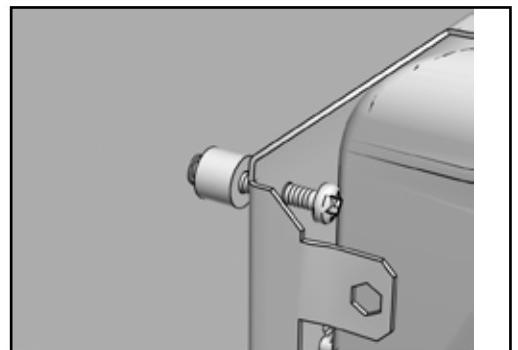


9- Affix the base of the evaporator unit to the 4 fixing points in this way:

- where there is no reinforcement, use MA 6 bolts of 110 mm. with a polyester foam washer.
- where there is reinforcement use MA 6 studs and polyester foam washer.

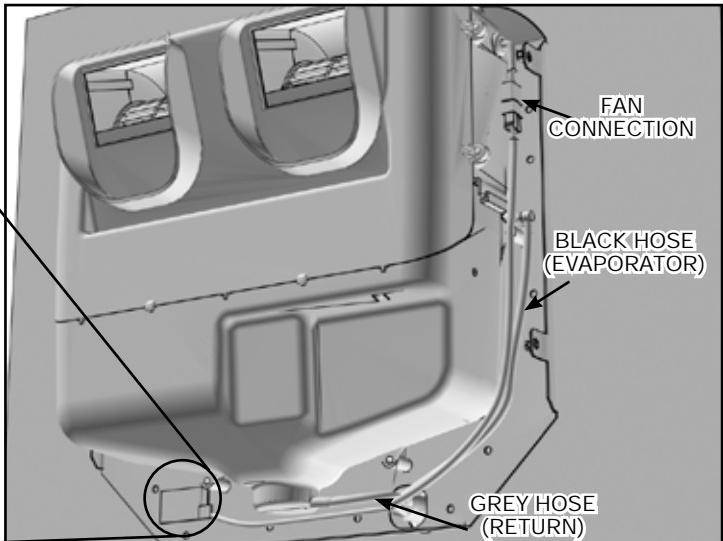
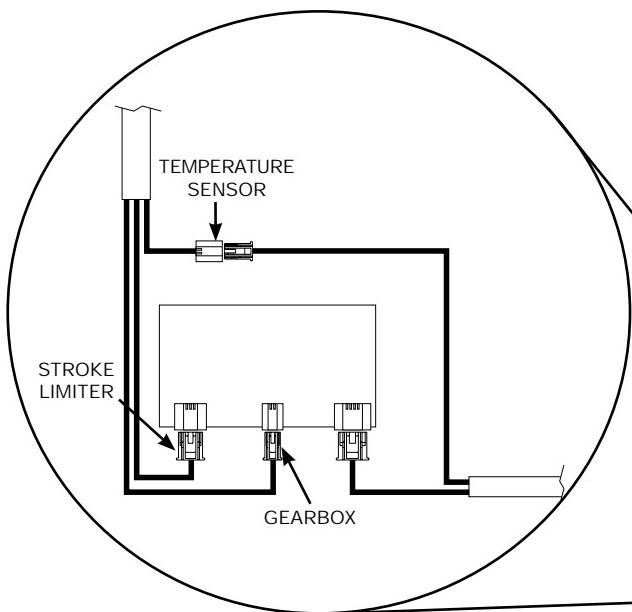


- Use the separators provided to prevent strangling the electrical and hydraulic installation.



Note: Before affixing the base, pass the air inlet electrical installation through the rectangular groove located on the lower left side and the system electrical and hydraulic installation through the Ø 40 mm hole.

10- Make the following connections and fasten with clamps.



11- Put the cover passing the electrical installation through the opening for the command and control module.



12- Secure the cover with 4 MA 6 bolts.



13- Connect the command and control module to the electrical installation.



14- Put (with pressure) command and control module in the cover.



15- Put (with pressure) the air guides.



2.2- POWER AND CONTROL MODULE

It allows the following operations:

- a) To change the speed of the biturbo fan (8 speeds)
- b) Command the air inlet system.
- c) To control the the water pump cycles
- d) To show the hour.
- e) To activate the alarm clock.
- f) To select the automatic mode.
- g) To select the auto power on/off
- h) Evaporator automatic drying.
- i) Turn off the system
- j) Indication to change the evaporator.

2.2.1- TECHNICAL CHARACTERISTICS

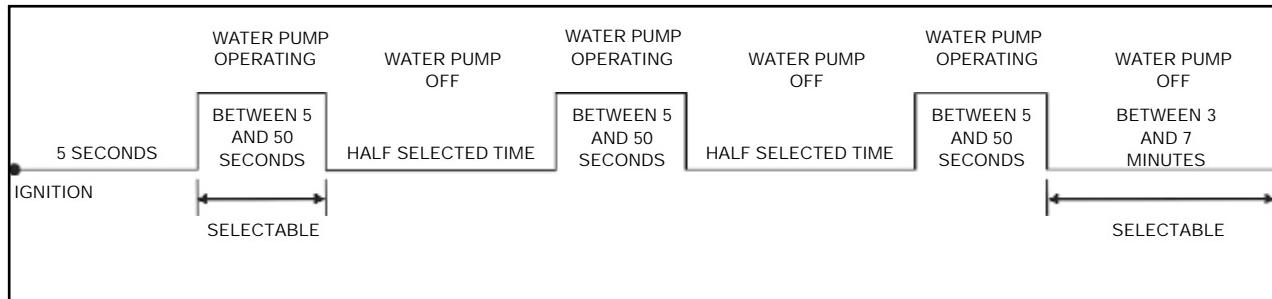
- a) Protection for polarity reversal.
- b) Parameter settings: Time system 24 H / 12 H, water pump time, drying period and maximum working time.
- c) Short-circuit protection in the water pump and in the turbo-fan and/or in its corresponding electrical connections.
- d) Protection for high voltage.
- e) Working tension: 12 volts.
- f) Auto switch off of the equipment for low tension in the battery

Voltage is sensed at the battery terminals

- g) Display with symbols to indicate the different functions.
- h) Automatic disconnection due to lack of water in the tank.
- i) Predetermined maximum working time.

2.2.2- CONTROL OF THE WATER

The module controls the operation of the pump cycle. It is showed in the following chart:



Important: When the system turns on, the command and control module causes 2 initial and consecutive water pump cycles half the selected water cycle time.

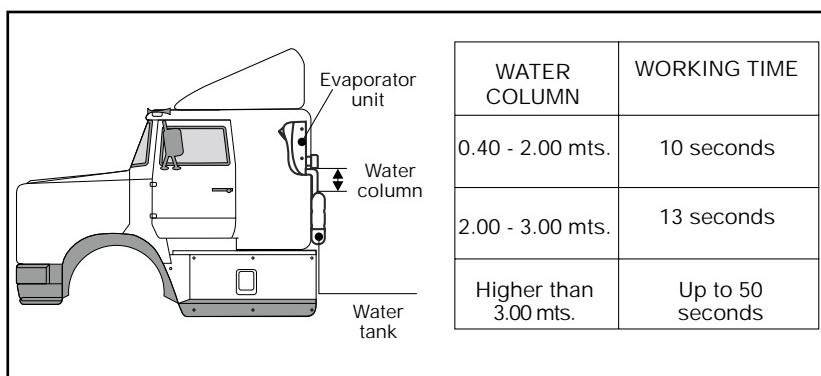
This is intended for an immediate evaporator moistening. For example: If the pump was set to turn off in 5 minutes, at first it will work twice every 2,5 minutes and then every 5 minutes.

2.2.3- LOW WATER LEVEL SENSOR

It monitors the presence of water in the tank; if there is a lack of water, it informs the operator about it with an audio-visual indication and it stops the operation of the water pump automatically.

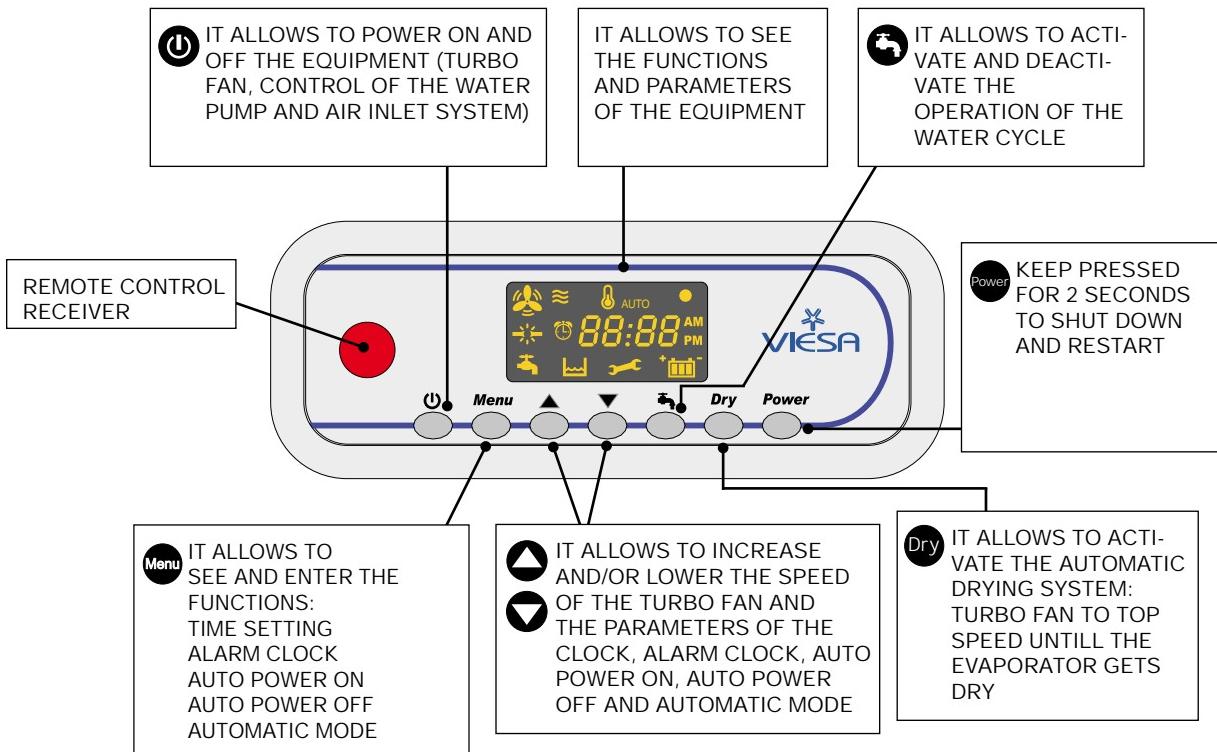
Note: water tank must contain water at all times as driving with an empty water tank will damage the water level sensor

2.2.4- CONFIGURATION ACCORDING TO THE WATER COLUMN



2.3- BOARD INDICATIONS

2.3.1- BOARD



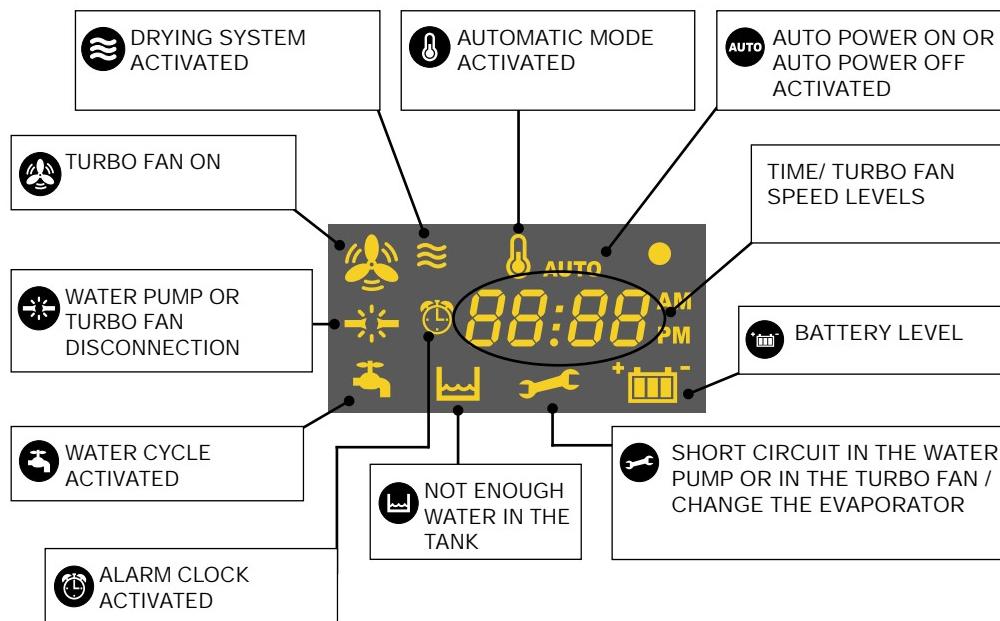
2.3.2- REMOTE CONTROL

Performs all the functions described above.

Dry : It activates the drying system; turbo fan to top speed until the evaporator gets dry.



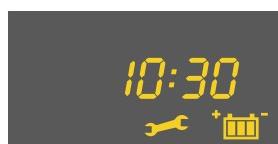
2.3.3- DISPLAY INDICATIONS



2.3.4- PERMANENT INFORMATION



- Clock.
- Battery level: If the voltage decreases to 11,8 V (factory setting), a  blinking display will appear and the equipment will start slowing down automatically, decreasing progressively the turbo fan speed

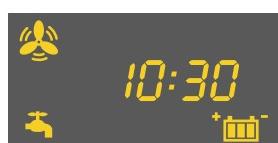


The command and control module registers the working hours, and after working for 546 hours,  turns on permanently indicating the evaporator needs to be replaced.

*Working hours are counted
only when the turbo fan or the water pump is on*

*Important: Every time the evaporator is replaced
the working time must be
set to **00:00** (zero) (see Command and Control Module configuration)*

2.3.5- TURBO FAN



By pressing  the turbo fan  and the pump control system  will be activated.
By pressing  again the turbo fan  and the pump control system  will be disconnected.

04

This equipment has 8 speed levels, which can be changed by pressing  or .

Note: keeping pressed one of these the buttons, the speed will vary in sublevels (a total of 24), which will not be displayed and will not emit any sound when passing from one sublevel to another.



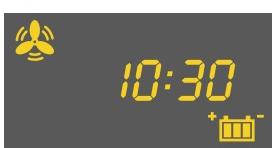
If the turbo fan is disconnected  is displayed and the system will make a sound. Will disappear after the problem is solved and the equipment is turned on by pressing .

In case the turbo fan consumes more than usual,  and  will be displayed and the system will make a sound.

It will disappear after the problem is solved and the equipment is turned on by pressing .

Note: If the turbo fan consumes more than 11 Amps, it is considered as over-consumption.

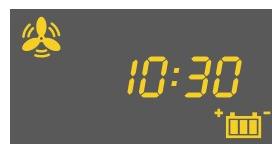
2.3.6- AIR INLET SYSTEM



In case there is an electrical problem in the air inlet system the  will blink and the equipment will turn off.

The symbol will turn off after the problem is solved and the equipment is restarted by pressing .

2.3.7- WATER PUMP

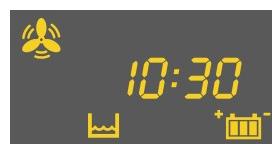


When pressing  the water pump will turn off .



When pressing  again, the water pump will turn on.

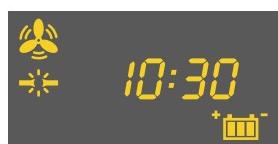
The  key will activate and deactivate the pump control independently of whether the equipment is activated with  or not.



If there is not enough water in the tank, the pump will not work  will be displayed and the system will make a sound.

Important:

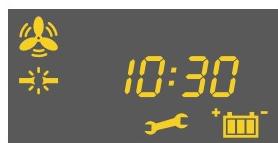
- If the equipment is turned off,  will turn off when water is poured into the tank.
- If the equipment is turned on,  will turn off when water is poured into the tank and the  key is pressed.



If the pump is disconnected,  will turn on and the system will make a sound. Will disappear after the problem is solved and the pump control is turned on by pressing .

Note: the turbo fan will continue working.

Important: The indication of pump disconnected will only show when the pump system is activated.



In case the pump consumes more than usual,  and  will be displayed and the system will make a sound.

Will disappear after the problem is solved and the pump control is turned on by pressing .

Note: If the pump consumes more than 7 Amps. it is consider over-consumption.

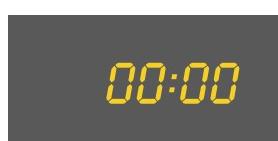
2.3.7. FUNCTIONS

With the  key the user has access to different functions:

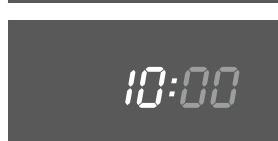
- Time setting
- Alarm clock
- Auto power on
- Auto power off
- Automatic mode

2.3.7.1- Set Time

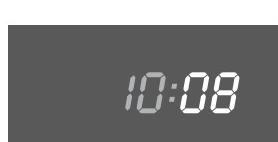
It allows the operator to set the equipment clock.



Press  until **00:00** is displayed and then press .



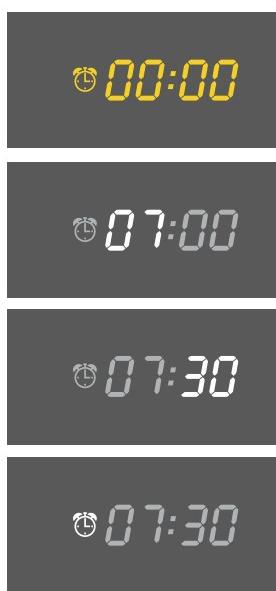
The hour blinks, press  or  to set the hour.



Pressing  select the minutes.
Use  or  to set the minutes.

Note: To confirm the hour, wait 5 seconds or press .

2.3.7.2- Alarm clock



Press  until  is displayed and then press .

The hour blinks, press  or  to set the hour.

Press  to select the minutes.
Use  or  to set the minutes.

Using  the alarm clock is selected  blinks, press  to activate or press  to deactivate.

Note: To confirm alarm clock, wait 5 seconds or press .

*To turn off the alarm clock, press any key
from the control panel or from the remote control, except
for .*

2.3.7.3- Auto Power On

It allows the operator to turn on the equipment automatically at a pre-programmed time.



Use  until  and  appear and then press .

Program the clock (see "Set Time").

Use  to select  blinks, press 

note: To confirm auto power on, wait 5 seconds or press .

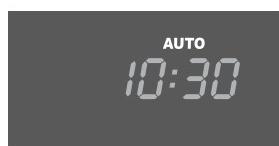
2.3.7.4- Auto Power Off

It allows the operator to power off the equipment automatically at a pre-programmed time.



Use  until  is displayed and then press .

Program the clock (see "Set Time").



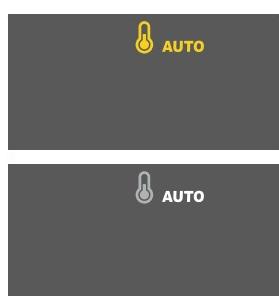
Using , is selected.
Then blinks, press to activate it or press to deactivate it.

note: To confirm auto power off, wait 5 seconds or press .

note: The power off system can be set even when the equipment is off.

2.3.7.5- Automatic Mode

It regulates automatically the speed of the turbo fan according to the exterior temperature.



Use until appears and then press .

Then blinks, press to activate it or press to deactivate it.

Note: To confirm automatic mode, wait 5 seconds or press .

Explanation: The turbo fan and the water pump will not power off even if the exterior temperature is very low; in this case the blower will continue working at the minimum speed. Take into account the following chart :

EXTERNAL TEMPERATURE	SPEED
29°C or higher	84°F or higher
28°C	82°F
27°C	81°F
26°C	79°F
25°C	77°F
24°C	75°F
23°C	73°F
22°C or lower	72°F or lower

Important: If the automatic mode is activated and the temperature sensor is disconnected, the turbo fan will continue working at its minimum speed.

2.3.8- DRYING SYSTEM

This unit is equipped with a drying feature which operates the fan to dry out the evaporator.

Important: If the equipment will remain off for more than 48 hs., activate the drying system to avoid bad smells when restarting it.



When pressing  the equipment will dry the evaporator, starting a countdown and then it will finish automatically.
To deactivate the drying system, press .

Note: the drying time of the evaporator is factory set to 35 minutes. This is the time we deemed required for normal humidity conditions. This time can be changed.

2.3.9- POWER OFF

When pressing for 2 seconds the power off button  the equipment will completely turn-off (Including the display)

To restart it press 

2.3.10- MAXIMUM TIME IN SERVICE

Every time the equipment is turned on with , it will work for a maximum period of time previously programmed and then it will turn off automatically. By default, the period is set to 9 hours.
Set period can be changed during initial configuration at installation

2.3.11- COMMAND AND CONTROL MODULE CONFIGURATION

Press  and  simultaneously during 2 seconds and  will turn on indicating the "configuration" mode.

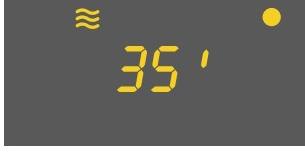
The module is factory configured except for the water cycle.

Very Important: If water cycle is not configured the module will not exit from "configuration" and the equipment will not work.

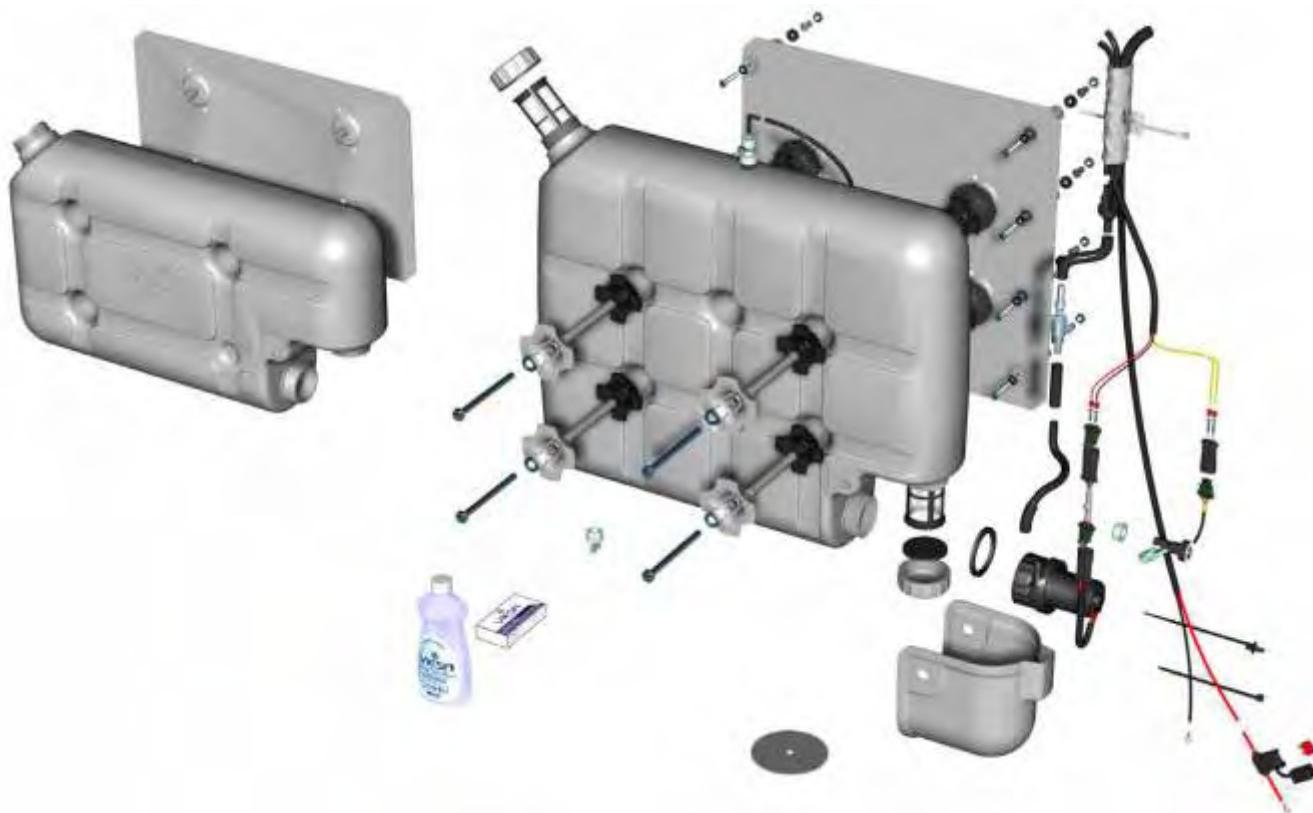
To change factory settings, proceed as shown in the following table

*Note: when pressing 

*Note: ' indicates minutes.
" indicates seconds.**

FACTORY CONFIGURATION	PARAMETER	MODE
	Time format 12 or 24 h.	Using  and  select 24 h or 12 h. Then press  .
	Water Cycle Working time of the pump.	Using  and  change the values. Range allowed: 5" to 50". Then press  .
	Water Cycle Period of time the pump is not working.	Using  and  modify the value. Range allowed: 3' to 7'. Then press  .
	Shear stress.	Using  and  modify the value. Values allowed: 10,5 V. to 12 V. (numbers increase one by one). Then press  .
	Drying time.	Using  and  modify the value. Range allowed: 20' to 60'. Then press  .
	Maximum working time.	Using  and  modify the value. Range allowed: 4 to 12 hours. Then press  .
	Working time (evaporator replacement).	- If it is in 00:00 press  - If the evaporator filter was changed press  to start from scratch, then press  .
	The display turns off.	To restart press  .

2.4- WATER TANK

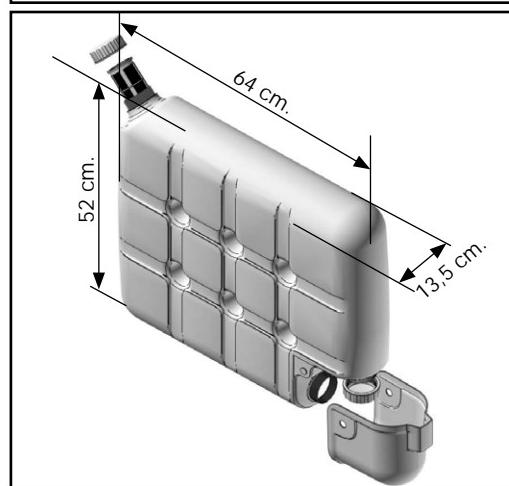
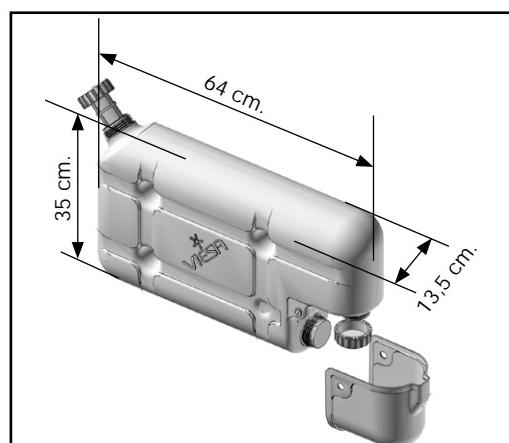


There are two models:

Standard: 32 litres. Dimensions: 64 x 52 x 13,5 cm.

Small: 20 litres. Dimensions: 64 x 35 x 13,5 cm.

Made of a non translucent material which assures darkness inside and prevents fungi formation on the interior walls.
Resistant to vibrations and rapid changes in temperature.



2.4.1- INSTALLATION

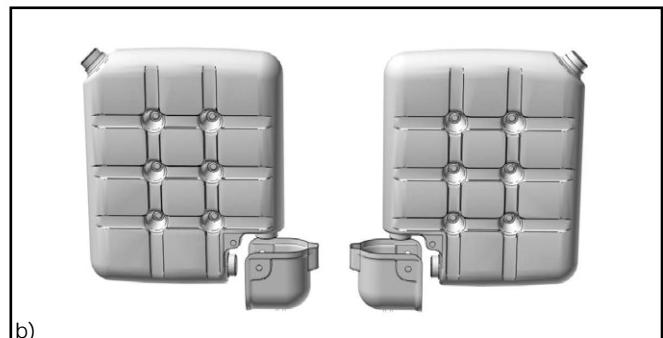
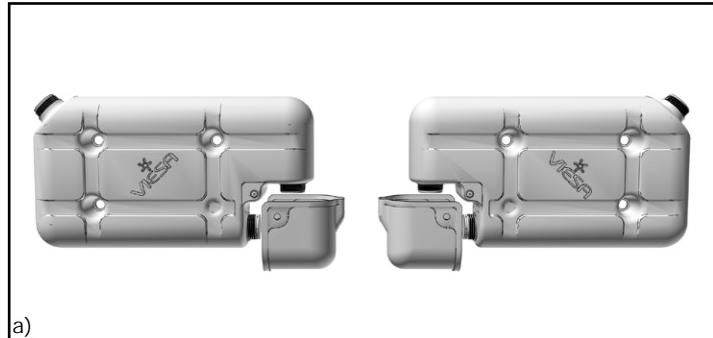
Location

- a) at the back of the cabin.
- b) in the chassis.

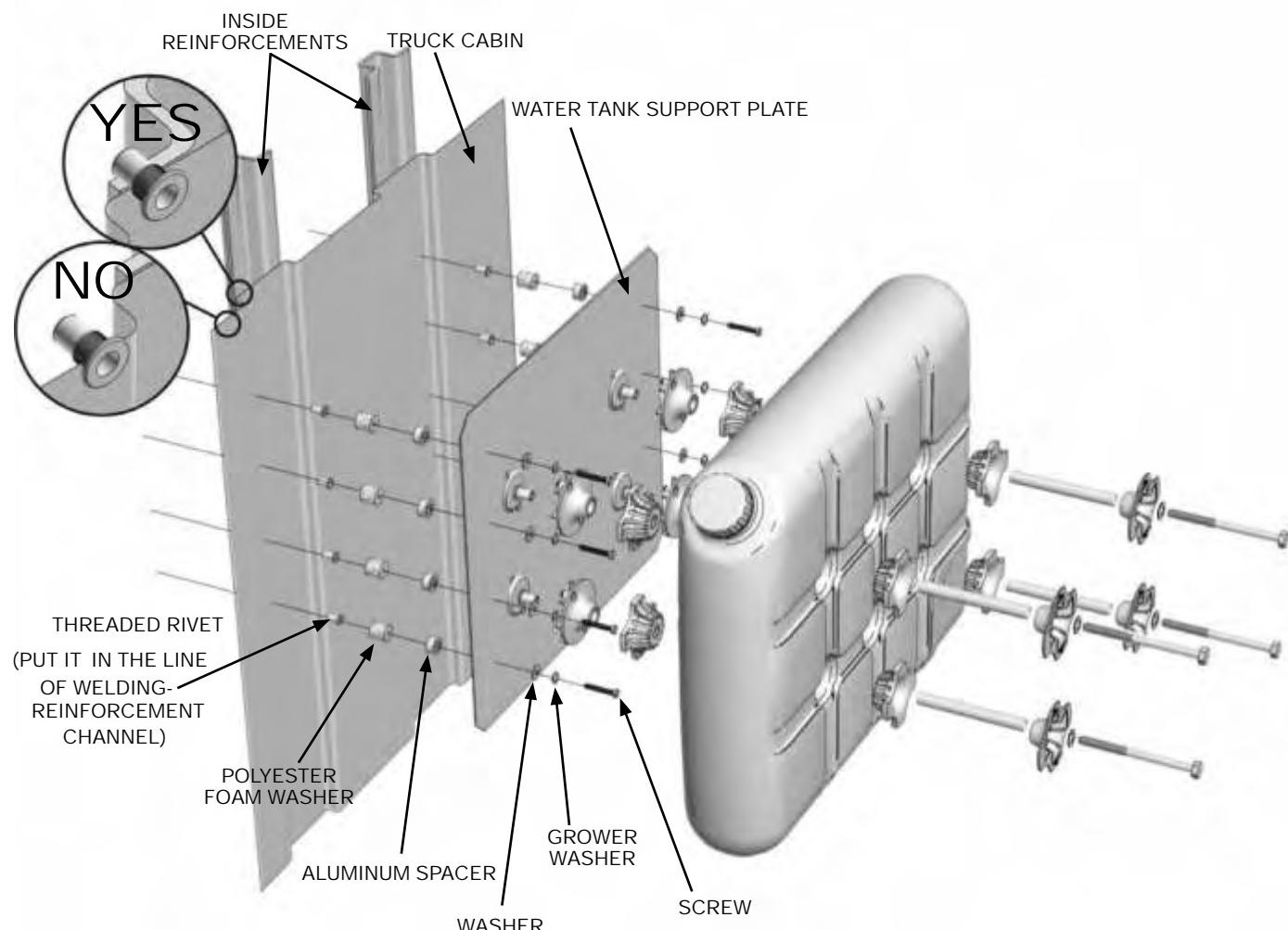
note: *Do not place it near the exhaust pipe.*

Position

Placing the tank horizontally (a) is preferred. Use vertical placement (b) only if not possible to place it horizontally.

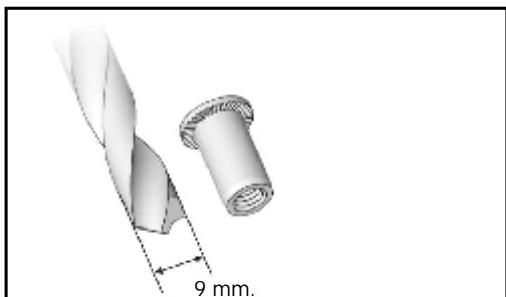
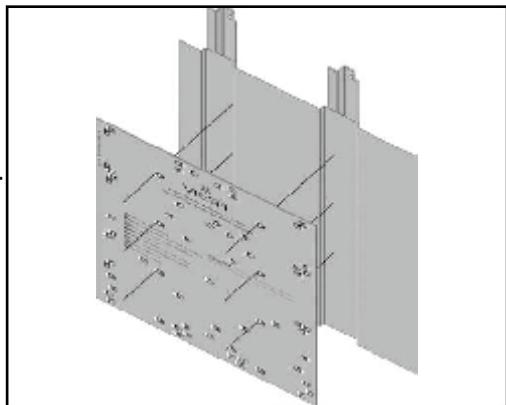


VERY IMPORTANT:
NEVER APPLY TANK TO CABINS WITHOUT REINFORCEMENTS



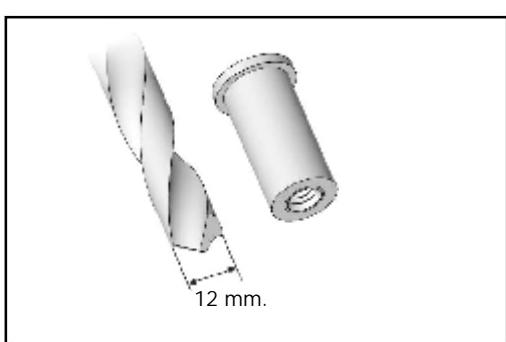
Identify the place on the rear part of the cabin where the tank will be installed.

Use the support plate to mark the points of attachment to the cabin.
ALLWAYS OVER THE WELDINGLINES prove with a 5 mm. diameter drill bit and after perforate with a 9 mm. drill bit.

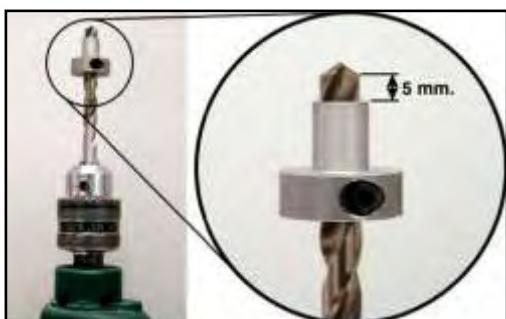


If using neoprene rivets, use a 12 mm. drill bit.

Neoprene rivets are used in units with fibreglass cabins.



Important: When using the 5 or 9 mm. drills bits, use a depth stop, to prevent damaging the inside upholstery.



Introduce and affix the threaded rivets provided.

For neoprene rivets insert them (manually) up to the brim. Then adjust the screws.

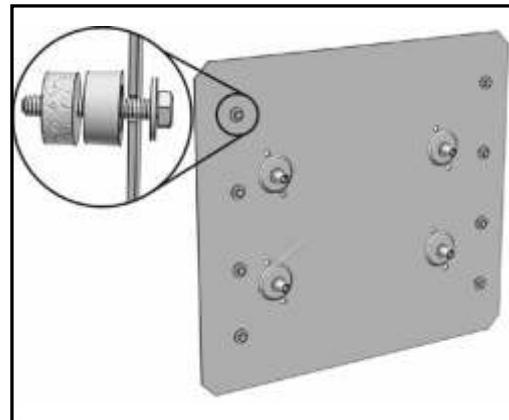
Install the water tank support plate to the cabin taking into account that there must be a separation of 10 mm. between the plate and the cabin. Use the spacers provided.

Place the polyester washers in order to avoid water or humidity filtrations.

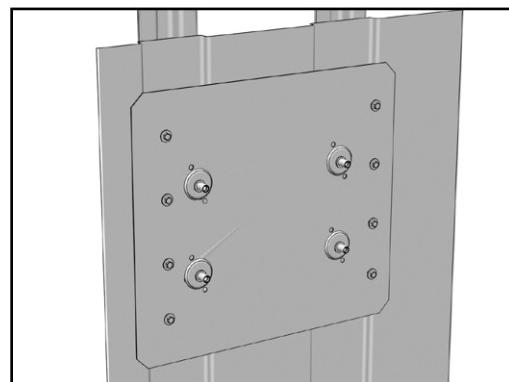


Important: Use the adequate separators to compensate uneven surfaces.

Before attaching the support plate to the cabin, set the tank's fixing screws and washers provided.

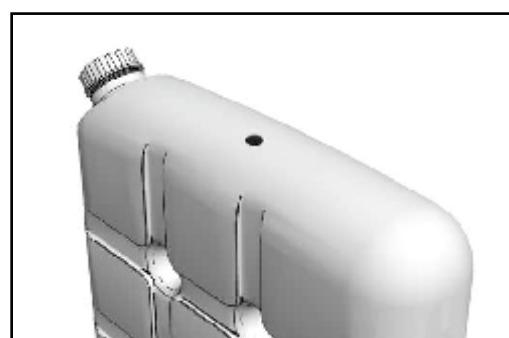


Attach the support plate firmly.

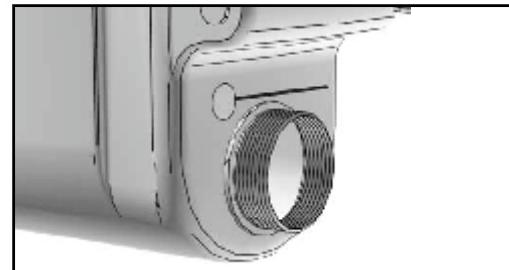


When using the water tank on vertical position; you have to make 3 holes of 22 mm. in diameter:

- For venting: On the upper part of the tank and at its center.



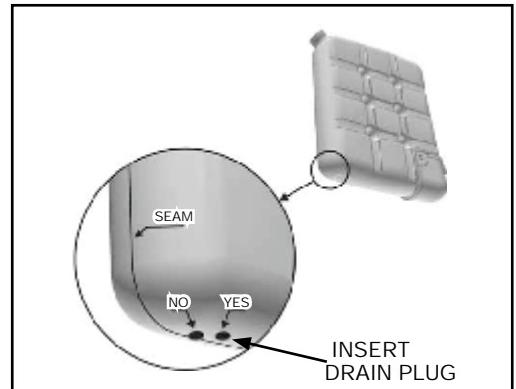
- For the level sensor: On one of the ends of the marked line where the water pump will be placed.





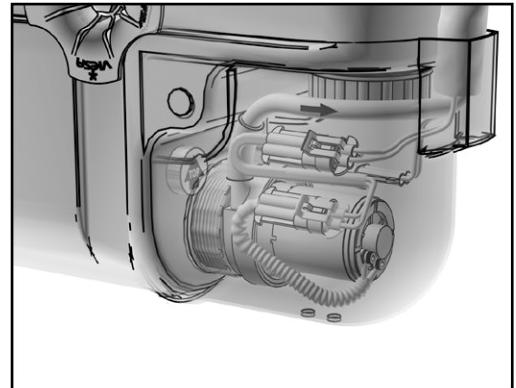
- For draining, at the bottom of the water tank and on the same side of the water tank cap.

Important: Remove shavings.



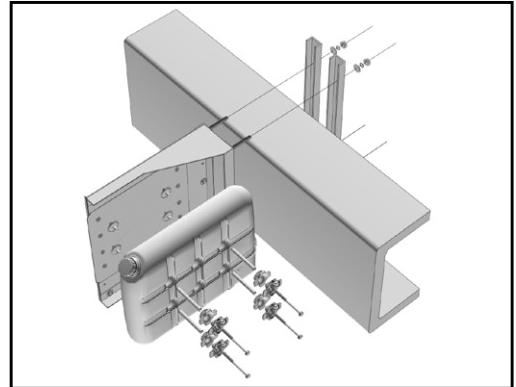
Place the water tank on the support plate and fix with the provided screws and washers.

Once the tank has been installed, cut the cord from the evaporator containing hoses and wires. See electrical and hydraulic diagrams in order to assess their length.

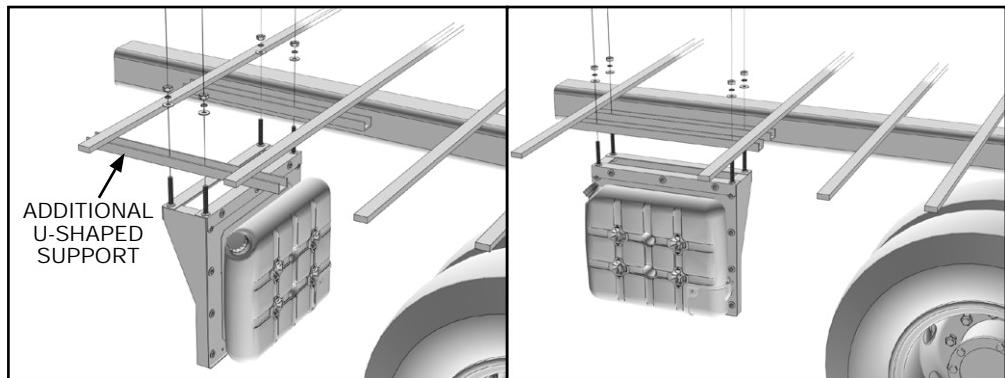


2.5 - WATER TANK SUPPORT (OPTIONAL)

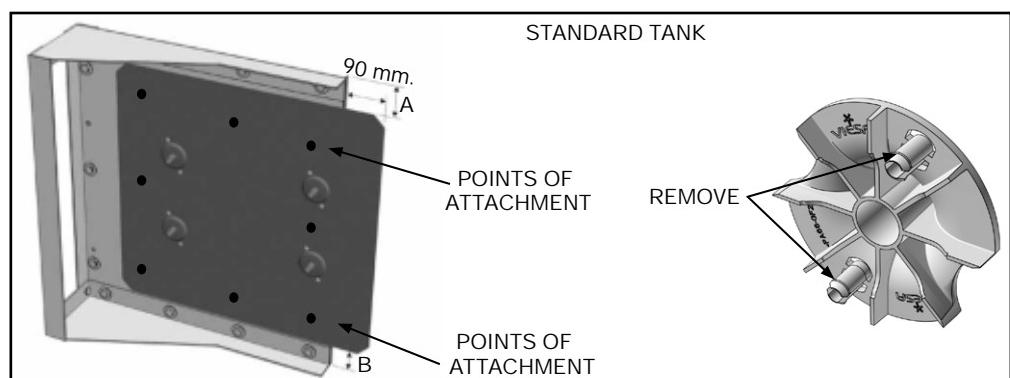
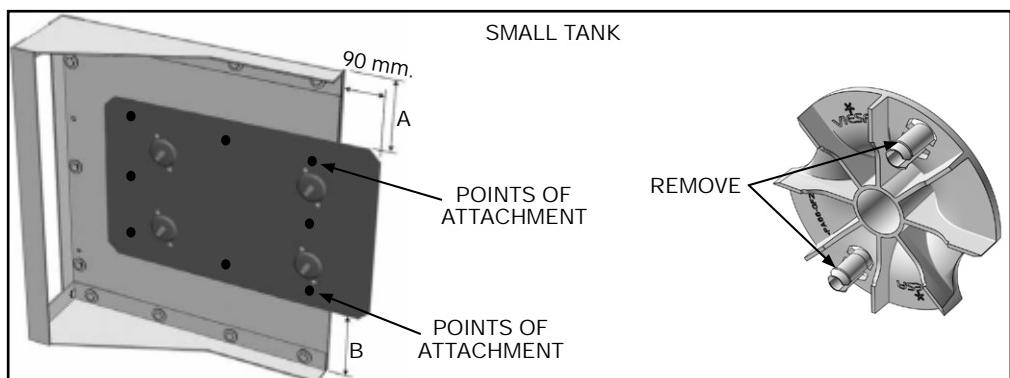
Depending on the vehicle, the water tank support can be placed parallel or perpendicular to the chassis frame.
Never drill the frame's flange.



Additional "U" channel pieces may be necessary.



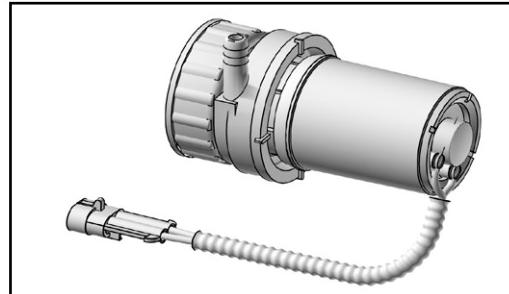
Important: distances A and B must be equal.



2.6- WATER PUMP

Technical Characteristics

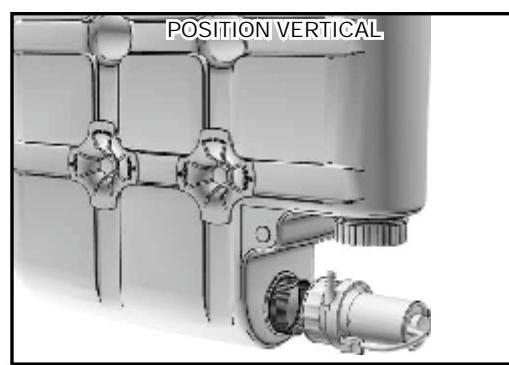
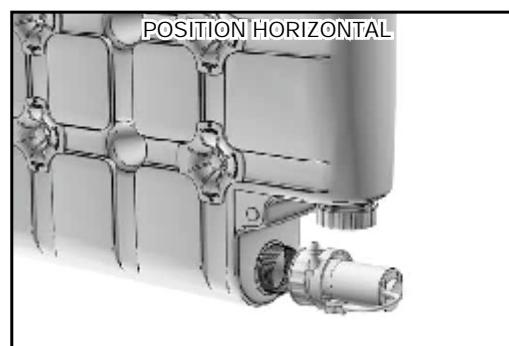
- a) Centrifugal - Sealed
- b) Consumption: 4 A.



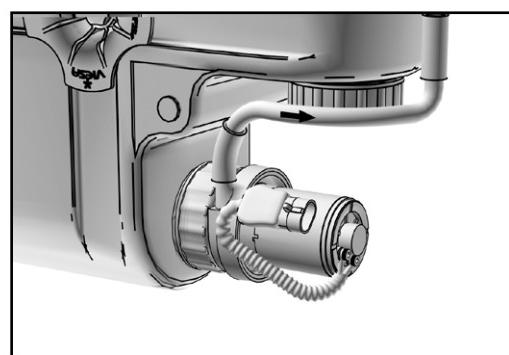
Installation

Screw the pump directly to the tank's opening, according to the picture.

Make sure that the rubber gasket seats correctly against the tank's wall.

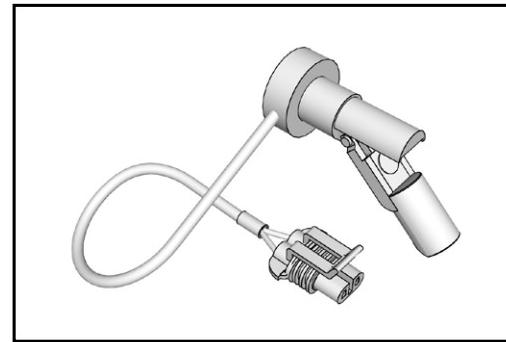


Important: Before adjusting the pump completely, insert the shorter length of the preformed hose to the pump's output nipple.



2.7- LEVEL SENSOR

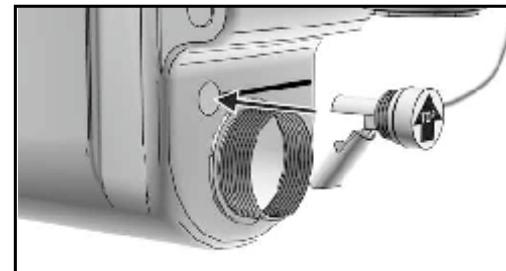
Controls the water pump operation.



Introduce the level sensor according to the figure.

Keep the marked arrow "UP".

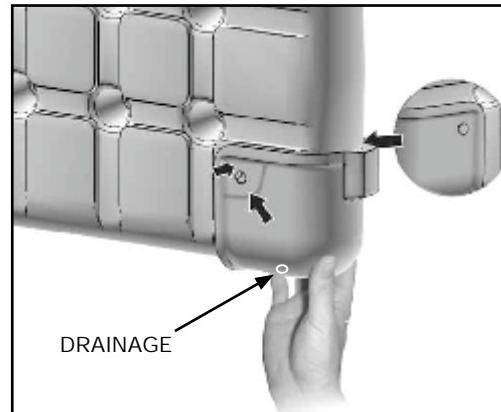
Use the provided rubber gasket.



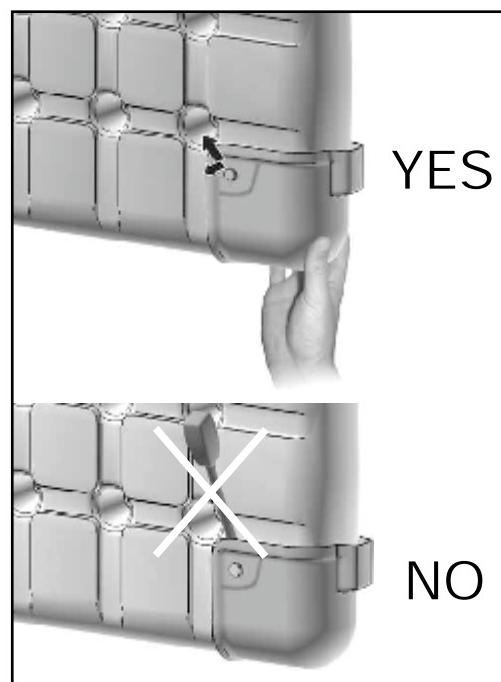
2.8- WATER PUMP COVER

To place the water pump cover insert first one of the holes in the water tank pin an then, manually, insert the second hole.

note: Make sure not to obstruct the water pump cover draining hole. If necessary, make an additional hole.

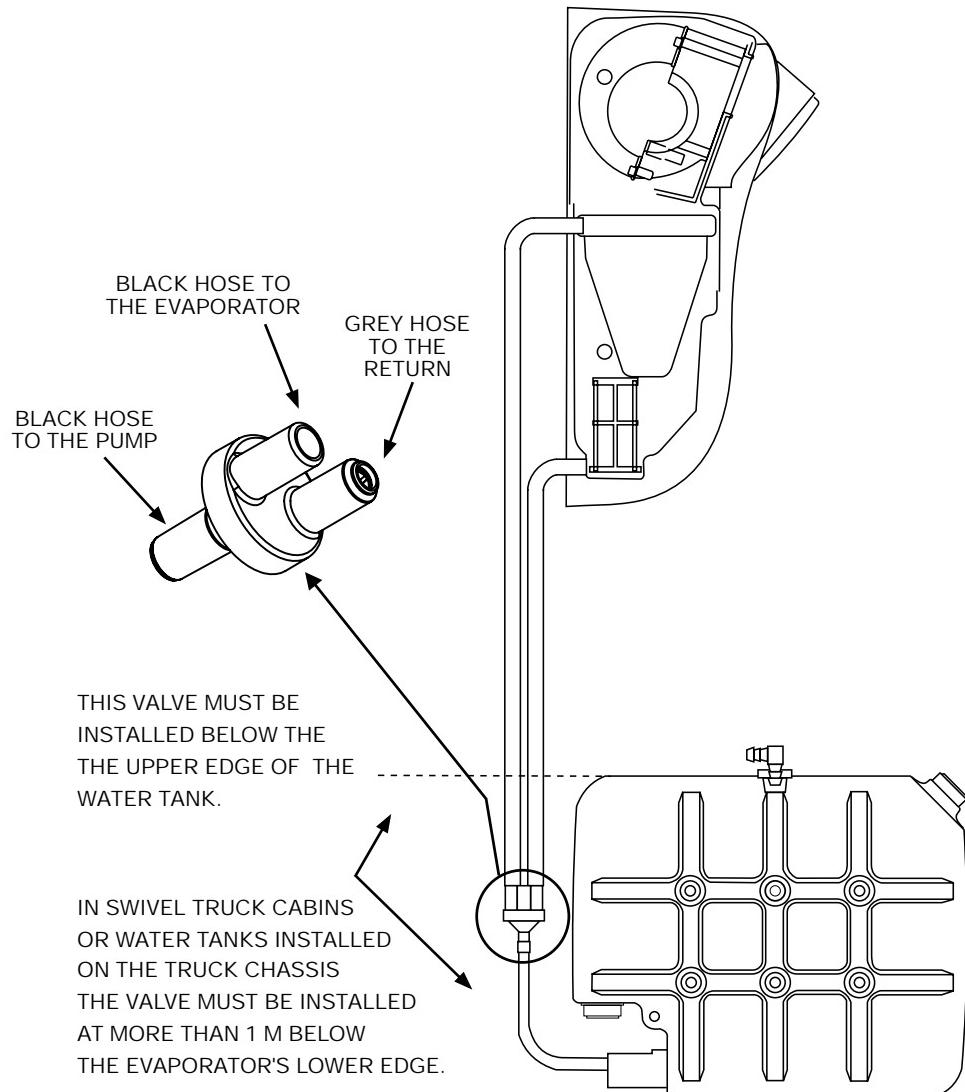


Important: *Don't use tools to remove the water pump cover.*



3- CONNECTIONS

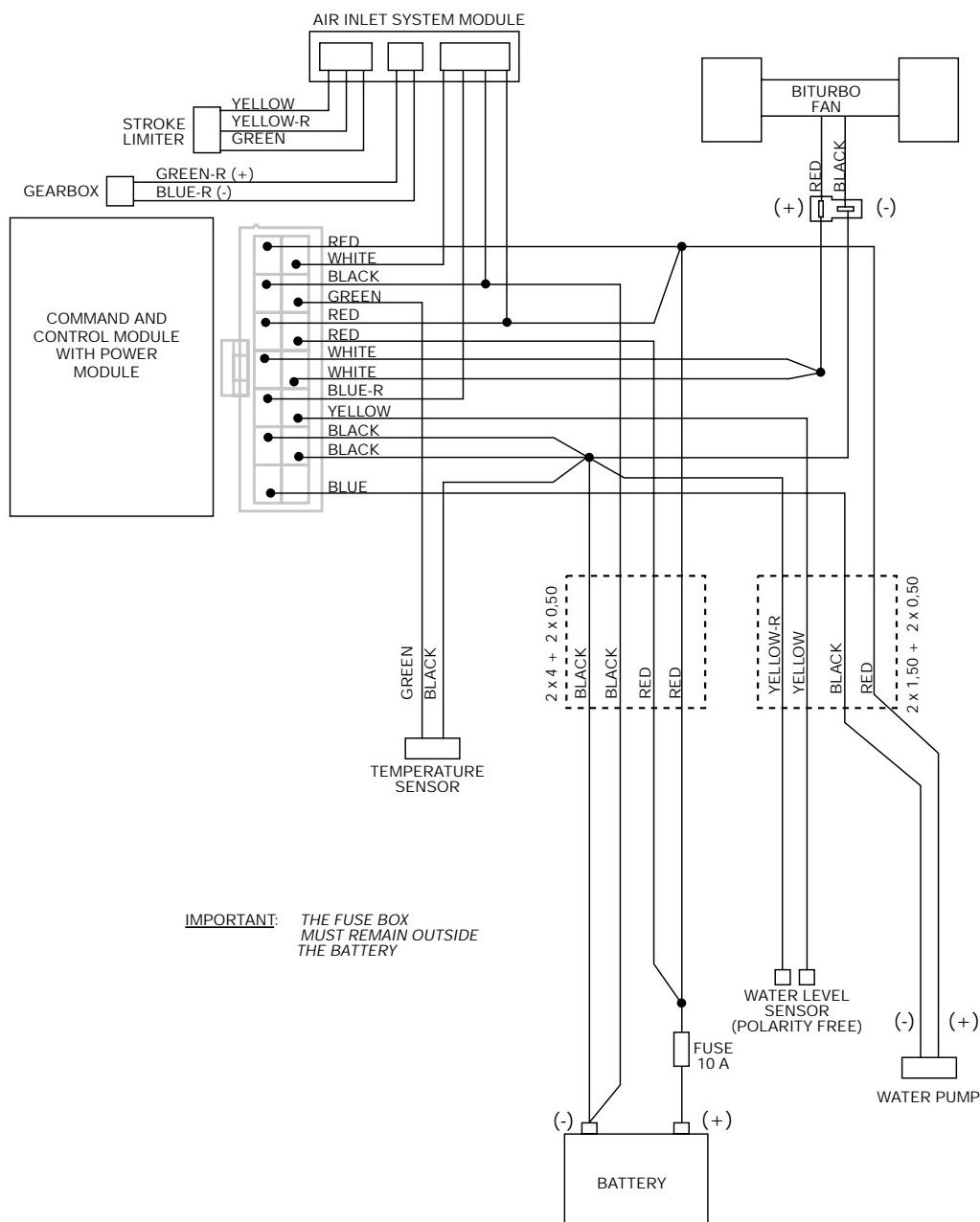
3.1- HYDRAULIC



note: cut the tubes accordingly. The grey cord wrap must cover all the hoses and wires until it reaches the pump cover.

explanation: to install the elbow (for ventilation) in the tank, make a 22 mm. diameter hole in the center of the top the tank (remove shavings). Use the elbow provided.

3.2- ELECTRICAL



⚠ Very Important: *The fuse must be installed at the end.*

Important: *In ADR (dangerous goods Transportation), encase and protect the electrical wiring in approved fire-proof material.*

note: *use the provided wire terminals, terminal covers and sockets. Solder wire terminals and / or joints with tin.*

The connection of the pump and level sensor must remain inside the pump cover.

Important: *the positive cable (+) is the last element to be connected.*

4- GENERAL MAINTENANCE

When  is displayed, the evaporator must be replaced.

The equipment will delay in cooling until the evaporator is totally wet.

Do not use fuses higher than :

10 Amp

The equipment will deactivate automatically due to low tension so as to prevent damages to the battery

Use only clean water

Foresee replenishment of water taking into account that the equipment consumes between 1 and 5 litres per hour depending on the ambient temperature.

VIESA SCENTED FLUID (EVERY 200 HOURS OF USE)

⚠ Very Important: Before repairing the air inlet system, remove the fuse or disconnect the command and control module.

⚠ When performing maintenance of the equipment or if the evaporator unit is removed, the system MUST NOT BE SWITCHED ON and you must not switch it on with this element removed.

Be careful with the cap of the air entrance, since it may cause serious damages when closing up.



GRANULATED CALFA BAS EACH 6 MONTHS



Keep the tank clean. Every 200 hours of use

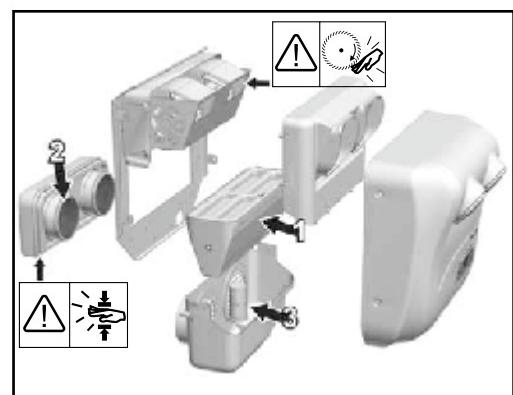
- Drain all the water from the tank by removing the drain plug
- Rinse with clean water thoroughly
- Pour one bottle of Viesa Scented Cleansing Fluid
- Fill-up the tank with clean water .

Each 6 months change the package of granulated Calfa Bas crystals. Do not use chemical products to clean the control panel.

During short stops leave the equipment on so as to keep the cabin fresh

Every 2 months or according to working conditions:

- Submerge the evaporator in water with bleach (1).
- Clean the grids of the air entrances (2).
- Clean the filter of the collector tray (3).



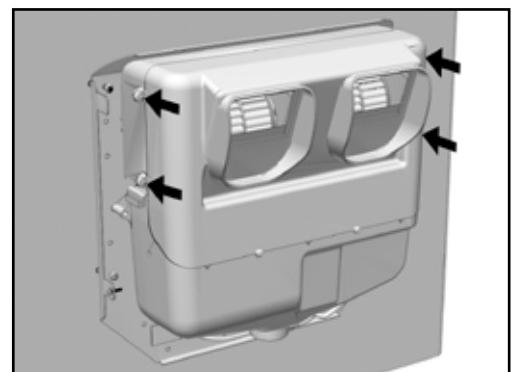
5- REPLACEMENT OF THE MAIN COMPONENTS

5.1- REPLACEMENT OF THE MOTOR OF THE BITURBO FAN

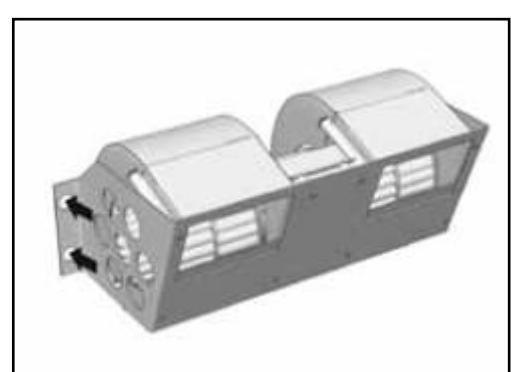
Remove the cover of the evaporator unit fixed with 4 screws.



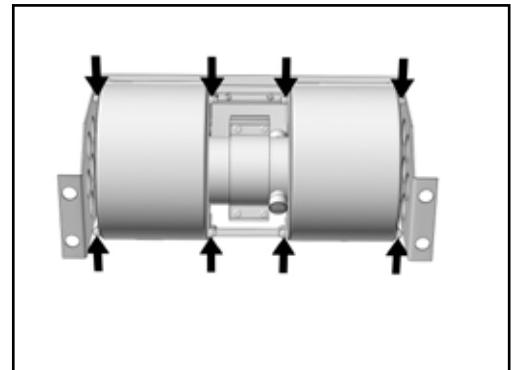
Remove the motor cover fastened with 4 screws.



Remove the fan support fastened with 4 screws.



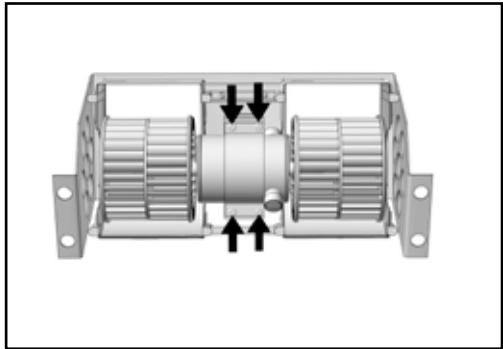
Remove the 2 covers of the turbines taking away the 8 threaded screws.



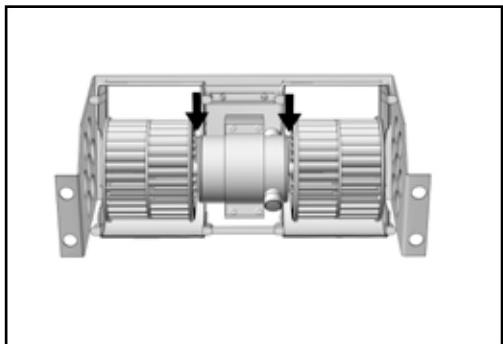
Remove the 4 screws from the motor's mounting bracket and remove it.

Replace the motor.

Re install the mounting bracket and adjust.



Important: Before final installation, center the motor correctly so that the fan doesn't rub against the sides.



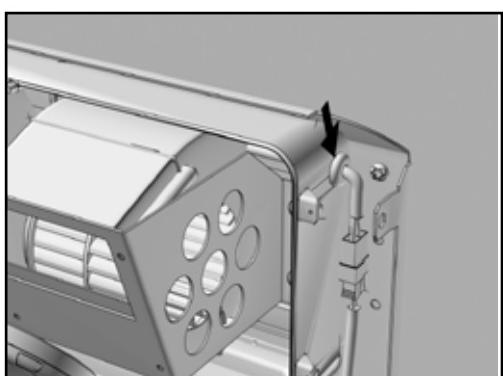
Put the two fan covers.

Install the metallic support of the fan.

Pass the wires through the lateral hole and connect.

Put the motor cover.

Place and adjust the cover of the evaporator unit.



5.2- REPLACEMENT OF THE EVAPORATOR

Remove the 4 screws from the cover

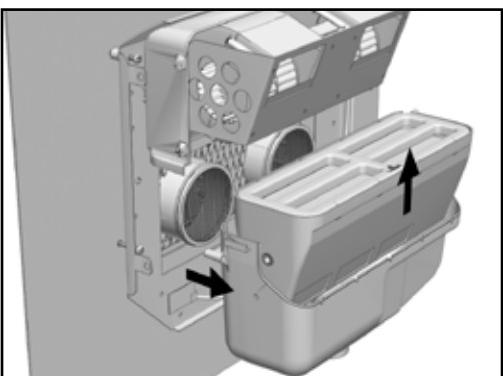
Remove the water collector.

Remove and replace the evaporator with a new one.

Reconnect the 9 x 15 hose to the new evaporator.



Replace the evaporator unit cover, fastening it with the screws.



5.3- REPLACEMENT OF THE POWER AND CONTROL MODULE

Remove the command and control module completely from the front side of the evaporator unit cover.

Disconnect the electrical wiring.

Insert the electrical wiring to the new module.

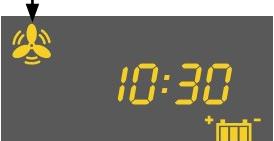
Put the command and control module on the cover.

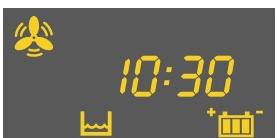


6- TROUBLESHOOTING

CHARACTERISTICS	POSSIBLE CAUSES	SOLUTIONS
<i>The indications are normal, but the equipment has low efficiency.</i>	HYDRAULIC <ul style="list-style-type: none"> 1- Inverted electrical connections of the water pump. 2- Evaporator 9 x 15 cm. tube blocked or kinked. 3- Little working time of the water pump. 4- Blocked holes of the water distributor of the evaporator. 5- Dirty evaporator. 6- Faulty water pump. 7- Faulty power and control module. 	HYDRAULIC <ul style="list-style-type: none"> 1- Connect correctly: red (+) and black (-). 2- Reroute tube 3- Configure correctly in accordance with the water column. 4- Replace the evaporator. 5- Clean and/or replace the evaporator. 6- Replace the water pump. 7- Replace the power and control module.
	VENTILATION <ul style="list-style-type: none"> 8 - Air inlets blocked with dirt. 9- Faulty fan. 	VENTILATION <ul style="list-style-type: none"> 8- Clean the air entrances. 9- Replace the motor of the fan.

CHARACTERISTICS	POSSIBLE CAUSES	SOLUTIONS
<i>When the equipment is on, water is spilled through the air inlet system.</i>	1- Working time excess of the water pump. 2- Blocked restriction valve. 3- Blocked return tubes. 4- Water collecting filter blocked. 5- Water column (distance between the base of the evaporator unit and the upper part of the tank) lower than 40 cm.	1- Configure correctly in accordance with the water column. 2- Clean or replace the restriction valve. 3- Clean the tubes and/or reroute. 4- Clean the filter. 5- Place the tank in a lower position.
<i>The speeds does not match the display indications or they do not change.</i>	1- Faulty fan. 2- Faulty power module.	1- Replace the motor of the fan. 2- Replace the power module.
<i>The fuse burns out continuously.</i>	1- Main positive feeding cable grounded. 2- Short circuit in the water pump cable. 3- Inverted electrical connections of battery.	1- Locate, repair and seal correctly. 2- Locate, repair and seal correctly. 3- Connect the red cable (positive) and the black one (negative) - ground.
<i>The power module burns out.</i>	1- Seized fan.	1- Replace the motor of the fan.
<i>Fan at its maximum speed cannot be turned off.</i>	1- Faulty power module.	1- Replace the power module. Check the free spinning of the fan.
<i>No sign or operation of water pump is showed on the display (the fan works only at one speed).</i>	1- Faulty power and control module.	1- Replace the power and control module.

CHARACTERISTICS	POSSIBLE CAUSES	SOLUTIONS
<i>The fan works, the display shows normal operation functions, but the pump does not work.</i>	1- False contact and/or disconnection of the multiple connector of the power and control module. 2- False contact and/or disconnection of the water pump. 3- Faulty control and command module. 4- Faulty water pump.	1- Repair and/or connect the multiple connector. 2- Proceed as follows: a) Repair and/or connect the water pump. b) Tin the terminals of the water pump correctly. 3- Replace the control and command module. 4- Replace the water pump.
<i>The equipment works correctly, but the fuse burns out continuously.</i>	1- Excessive Amp consumption and/or short-circuit in the fan. 2- Excessive Amp consumption and/or short-circuit in the water pump. 3- Feeding positive cable grounded 4- The pump voltage does not match the unit voltage. 5- The fan voltage does not match the unit voltage.	1- Replace the fan. 2- Replace the water pump. 3- Locate, repair and seal correctly. 4- Replace the water pump. 5- Replace the motor of the fan.
DISPLAY INDICATIONS		
	1- Disconnected water pump cables. 2- Cut cable/s. 3- False contact between the terminals of the water pump.	1- Connect. 2- Locate, repair and seal correctly. 3- Clean and/or replace the terminals.
	1- Electrical and/or electronic damage in the air inlet system. 2- Disconnection or cut cables from the motor or from the air inlet system's module.	1- Replace the opening and closing electric motor or the air inlet module. 2- Connect or repair.

CHARACTERISTICS	POSSIBLE CAUSES	SOLUTIONS
	1- Disconnection of the water level sensor cables. 2- Cut water level sensor cables. 3- Faulty water level sensor.	1- Connect water level sensor. 2- Locate, repair and seal correctly. 3- Replace the water level sensor.
	1- Disconnected cables of the turbo fan. 2- Cut cable/s. 3- Bad contact between the turbo fan terminals.	1- Connect. 2- Locate, repair and seal correctly. 3- Clean or replace the terminals.
	1- End of the evaporator working life.	1- Replace and configure to zero.
	1- Faulty control and command module.	1- Replace the control and command module.
	1- Low battery level. 2- 1 x 0,50 red or black cable disconnected or cut.	1- Recharge battery. 2- Connect.
	1- Turbo fan excessive power consumption.	1- Replace.
	Water pump excessive power consumption.	1- Replace.

INSTALLATION MANUAL VIESA INTERNAL II

REVISION 003
1-2012



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